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GENERAL STUDIES (TEST CODE : 1523)

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Medium Eng./Hindi	English	Registration Number	633402
Center	Online	Date	24/12/2020

INDEX TABLE

Q. No.	Maximum Marks	Marks Obtained
1	10	
2	10	
3	10	
4	10	
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6	10	
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9	10	
10	10	
11	15	
12	15	
13	15	
14	15	
15	15	
16	15	
17	15	
18	15	
19	15	
20	15	

Total Marks Obtained:

Remarks:

INSTRUCTIONS

1. Do furnish the appropriate details in the answer sheet (viz. Name, Registration Number and Test Code).
   उत्तर पुस्तिका में सूचनाएं भरना आवश्यक है (नाम, प्रश्न–पत्र कोड, विद्यार्थी क्रमांक आदि)।
2. There are **TWENTY** questions printed in **ENGLISH & HINDI**
   इसमें बीस प्रश्न हैं अंग्रेजी और हिन्दी में छपे हैं।
3. **All questions are compulsory.**
   सभी प्रश्न अनिवार्य हैं।
4. The number of marks carried by a question/part is indicated against it.
   प्रत्येक प्रश्न/भाग के अंक उसके सामने दिए गए हैं।
5. Answers must be written in the medium authorized in the Admission Certificate, which must be stated clearly on the cover of this Question-Cum-Answer (QCA) Booklet in the space provided. No marks will be given for answers written in medium other that the authorized one.
   प्रश्नों के उत्तर उसी माध्यम में लिखे जाने चाहिए जिसका उल्लेख आपके प्रवेश पत्र में किया गया है और उस माध्यम का स्पष्ट उल्लेख प्रश्न–सह–उत्तर (क्यूसीए) पुस्तिका के मुख्य पृष्ठ पर अंकित निर्दिष्ट स्थान पर किया जाना चाहिए। उल्लिखित माध्यम के अतिरिक्त अन्य किसी माध्यम में लिए गए उत्तर पर कोई अंक नहीं मिलेंगे।
6. Word limit in questions, if specified, should be adhered to.
   प्रश्नों में शब्द सीमा, जहाँ विनिर्दिष्ट है, का अनुसरण किया जाना चाहिए।
7. Any page or portion of the page left blank in the Question-Cum-Answer Booklet must be clearly struck off.
   उत्तर पुस्तिका में खाली छोड़ा हुआ पृष्ठ या उसके अंश को स्पष्ट रूप से काटा जाना चाहिए।

EVALUATION INDICATORS

1. Contextual Competence
2. Content Competence
3. Language Competence
4. Introduction Competence
5. Structure - Presentation Competence
6. Conclusion Competence

Overall Macro Comments / feedback / suggestions on Answer Booklet:

1.

2.

3.

4.

5.

6.

All the Best

Don't write anything this margin (इस भाग में कुछ ना लिखें)

1. Enumerate the issues associated with functioning of the Central Information Commission. How can these issues be addressed? **(150 words) 10**

केंद्रीय सूचना आयोग की कार्य प्रणाली से संबद्ध मुद्दों को सूचीबद्ध कीजिए। इन मुद्दों का कैसे समाधान किया जा सकता है?

Central Information Commission (CIC) was setup under the Right to Information Act, 2005, considered as a watershed moment in the fight for transparent governance.

However overtime, CIC has been mired with various issues, which hamper it's credibility as a bulwark of ~~go~~ transparency. Some of these are mentioned below:-

1. Appointment process - The committee responsible for appointing CIC & 10 other Information Commissioners consists of Prime Minister, Leader of Opposition and a Union Minister nominated by the Prime Minister. With no leader of opposition recognised, appointment process suffers.

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2. RTI (Amendment) Act, 2019 provides for the salary and allowances of CICs and ICs to be decided by Union Executive. This affects it's independent nature.

3. Tenure of information commissioner has been reduced to 3 years. This is considerably short compared to other bodies.

4. CICs & ICs have been made eligible for reappointment. This leads to politicisation of the body.

5. Staff crunch, dependency on CBI for investigation are other issues being faced.

Steps to be taken

1. Provide Constitutional status to CIC.
2. Make the appointment committee more broad based. (involving CJI in it)
3. Instituting an investigation wing under CIC.
4. Making the expenses of CIC charged on ~~Constitution of~~ Consolidated Fund of India.

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2. In India, Governor's discretionary powers are wider than those of the President. Elaborate. **(150 words) 10**

भारत में, राज्यपाल की विवेकाधीन शक्तियाँ राष्ट्रपति की तुलना में अधिक व्यापक हैं। सविस्तार वर्णन कीजिए।

Although Governor holds a position with respect to state, which is analogous to President's position to Centre, she still has more discretionary powers.

Constitutional Provisions

President

1. The Constitution of India provides for a Council of Ministers under Article 74, to aid & advice the President. It has been accepted that President has to always act according to the advice of COM.
2. No explicit discretionary powers have been mentioned.

Governor

1. Constitution provides discretionary powers for Governor of following types :-

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(a) Explicit Discretionary Powers

(i) When Governor is appointed as administrator of an adjoining UT.

(ii) Reserving a bill for Presidential assent.

(iii) Forwarding a report under Art. 356 to President

(b) Implicit discretionary powers

(i) Incase of a hung assembly

(ii) Requesting for an information about business of the house or decision of Council of Ministers

(iii) Sending an advice of Council of Ministers back for reconsideration

In this way, Constitution envisages no other role of the President other than acting as per advice of Council of Minister. This is the basis of Parliamentary form of Government in India, However, Governor's dual role of centre's nominee as well as state executive's head provides for greater discretionary powers.

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3. Highlight the objectives that were sought to be achieved through tribunals. How successful have they been in meeting them? **(150 words) 10**
उन उद्देश्यों को रेखांकित कीजिए जिन्हें अधिकरणों के माध्यम से प्राप्त करने का प्रयास किया गया था। वे उन्हें पूर्ण करने में कितने सफल रहे हैं?

42nd Constitutional Amendment Act provided for setting up of tribunals for administ-rative and other purposes under the Article 323A and 323B.

Objectives of Tribunals

1. Need of technical adjudication, which was difficult for ordinary courts.
2. Expedite the process of disputes resolution.
3. Reduce the burden of judiciary which has 3.5 crore pending cases.
4. Improve the ease of doing business by enforcing contracts in a transparent manner.
5. Providing a platform for civil servants for resolution of their service disputes in a time bound manner.

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Three decades hence, their success can be measured from following observations:

1. The pace of adjudication through tribunals has been recognised satisfactorily by NCRWC.
2. Important tribunals like Telecom Dispute Settlement Appellate Tribunal, Airports & Tariffs Appellate Tribunals, etc. have provided quick resolutions for cases like Adjusted Gross Revenues.
3. Judicial burden for such cases has been reduced.

But following lacunae are still observed:

1. Apex Court has allowed appeals against tribunals to be heard by it. This defeats the whole purpose.
2. Appointments to various tribunals are held back.
3. Finance Bill, 2017 merged many tribunals. Some of these mergers contradict their previous roles envisaged for them.

Thus, the tribunals have had a mixed success so far. Removing the shortcomings would help.

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4. Instead of the government regulating Over-the-top (OTT) platforms, there have been calls for a self-regulating mechanism for such platforms, as in the case of print media. Discuss. **(150 words) 10**

सरकार द्वारा ओवर-द-टॉप (ओ.टी.टी.) प्लेटफॉर्म्स को विनियमित करने के स्थान पर, ऐसे प्लेटफॉर्म्स के लिए एक स्व-विनियमन तंत्र हेतु आह्वान किया गया है, जैसे कि प्रिंट मीडिया के मामले में किया गया है। चर्चा कीजिए।

Over-the-top (OTT) platforms refer to those platforms which provide digital content (like movies, serials, documentaries) through the internet service providers. Netflix, Amazon Prime are some of the examples.

~~Need~~ ~~To~~ Current Regulation

OTT platforms are not needed to get CBFC certification as they provide personal viewing experience to the viewers.

Need for regulation

1. OTT platforms have far greater reach than traditional entertainment media.
2. With a large pool of young population, India ~~is~~ has a moral responsibility to regulate such content

Don't write anything this margin

3. The nature of OTTs being personalised, has far greater impact on viewers.

In favour of self-regulation

1. Would balance the freedom of speech and expression (Article 19(1)(a)) and the moral responsibility of disseminating content of considerable standards.
2. Government regulation is often based more on public sentiments, which can occassionaly lead to poor development in arts field.
3. Govt. regulation for ~~such~~ OTTs is difficult to be enforced due to multiplicity of such platforms.

A judicious mix of regulation by government and OTTs is the best course of action. Providing basic minimum regulations for OTTs by the government can be complemented with OTTs bringing up their own media policy for overall societal benefit.

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5. Bring out the arguments surrounding the issue of some states reserving jobs for locals in the private sector. **(150 words) 10**

कुछ राज्यों द्वारा निजी क्षेत्रक में नौकरियों को स्थानीय लोगों के लिए आरक्षित किए जाने से संबंधित मुद्दे के चतुर्दिक तर्कों को स्पष्ट कीजिए।

Haryana Government recently reserved 75 percent of the private jobs in the state for locals. Such demands have also been witnessed in Gujarat, Maharashtra, etc.

Reasons for such demands

1. Unemployment has been at 45 year high.
2. Shift of manpower from agriculture to manufacturing sector has further agravated the problem.
3. Sons of the soil movement
4. Increased deprivation due to lockdown induced by COVID-19 pandemic.

Issues related to reservation

1. Constitutional Provision – Article 16(4) provides for reservation in jobs. Two aspects need to be observed :-

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1.1 Jobs reservation can be provided only by Parliament

1.2 Reservation can only be provided for public sector, not private sector.

Thus such reservations are unconstitutional.

2. It would be detrimental to the unity of the country.

3. India has 65 million internal migrants. Such demands would result in their livelihood being endangered.

4. Industries like chemical industry, Petroleum Industry would find it difficult to get skilled workforce locally.

5. Responsibility of skilling would fall on private sector.

Thus, skill development and inclusive policies are the solution. Schemes like Pradhan Mantri Kaushal Vikas Yojana need to be strengthened further.

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6. Identifying the key elements of Mission Karmayogi, briefly explain how it can lead to holistic development of the human resources and state's capacity. **(150 words) 10**

मिशन कर्मयोगी के प्रमुख तत्वों की पहचान करते हुए, संक्षेप में स्पष्ट कीजिए कि इससे मानव संसाधन और राज्य की क्षमता का समग्र विकास कैसे हो सकता है।

Mission Karmayogi, or National Programme for Civil Services Capability Building has been envisaged as a human resources development scheme by the Government of India.

Key elements of Mission Karmayogi

1. Ensuring mid-career level training for all civil servants.
2. Special training sessions focussed on soft-skills and personality development.
3. Focus on inculcating values like service orientation, empathy for better public service.
4. Feedback and regular monitoring of training outcomes has also been envisaged.

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The mission is expected to help in better human resources and state's capacity in following ways:

1. Continuous learning process would help the administration remain in touch with latest developments in public service delivery field.
2. Focus on values like compassion, empathy, transparency, neutrality, etc. would provide humane face to the administration.
3. Feedback mechanism ~~has~~ would provide a benefit to future trainees with better training modules.

In this way, a ~~good~~ administation manned by better civil servants would provide an excellent public service delivery, through this mission.

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7. Highlighting the role played by ASHA workers in public health system of India, discuss the challenges faced by them. (150 words) 10
भारत की सार्वजनिक स्वास्थ्य प्रणाली में आशा कार्यकर्ताओं द्वारा निभाई गई भूमिका को रेखांकित करते हुए, उनके द्वारा सामना की जाने वाली चुनौतियों की विवेचना कीजिए।

Accredited Social Health Workers (ASHAs) are the last mile connectors of the Indian public Health sector.

Role played by ASHA workers

1. Incentives provided to ASHA workers for institutionalised deliveries has paid good returns. Current data is:

Institutionalised Deliveries
- Rural – 90%
- Urban – 96%

2. Important schemes where ASHA workers play major role are:

2.1 Integrated Child Developement Scheme (ICDS)

2.2 Pradhan Mantri Matru Vandana Yojana

2.3 Pradhan Mantri Matritva Suraksha Abhyaan.

2.4 POSHAN Abhyaan

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3. They have increased the vaccination coverage, with atleast 98% children undergoing atleast one vaccination.

Challenges faced by ASHA workers

1. Remuneration is insufficient compared to the workload.
2. States engage them in other activities, like census data collection.
3. Lack of social acceptance due to lower literacy level. (Qualification of ASHA worker is eighth standard)
4. Poor rural healthcare infrastructure hampers their functioning.
5. Lack of training in providing essential first aid in Primary Healthcare centres.

The importance of ASHA workers has been highlighted by recent COVID crisis where they helped distributing PPEs at village level. Thus better salaries, training programmes, improving medical literacy can further strengthen their roles.

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8. While internationalisation of higher education has many potential benefits for India, certain challenges will need to be addressed in this regard. Discuss. **(150 words) 10**

यद्यपि उच्चतर शिक्षा के अंतर्राष्ट्रीयकरण के भारत के लिए कई संभावित लाभ हैं, तथापि इस संबंध में कुछ चुनौतियों का समाधान करने की आवश्यकता होगी। चर्चा कीजिए।

National Education Policy, 2020 provides ample guidelines for internationalisation of higher education, for improving the educational standards.

Potential benefits

1. Tieups by Indian Universities with international institutes would bring best talent from the world.
2. Bringing Indian education curriculum inline with international standards.
3. Better faculty that can be sourced from major institutes like Harvard, Oxford, etc.
4. Attracting foreign students for education
5. Building India as a knowledge economy
6. Increasing research activities in the universities.

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Challenges which should be addressed

1. India has a large number of universities which lack even basic research facilities.
2. Inbreeding culture, where PhD. students start working as Professors in same institutes harms the research culture.
3. No Indian University is in top 100 of world rankings. Thus foreign institutions would be reluctant to have collaborations.
4. Patents filed by Indian researchers are miniscule as compared to China or US.
5. Only 40% of Indian graduates were employable in 2018, reflecting lack of skills.

Building research universities and Institute of national importance are steps in the right direction. Initiatives providing more autonomy, strengthening research culture, remodelling education courses is need of the hour.

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9. India needs to adopt a more pragmatic stance in the context of the ongoing intra-Afghan talks. Discuss, in the light of India's engagement with Afghanistan. **(150 words) 10**

भारत को वर्तमान में जारी अंतरा-अफगान वार्ताओं के संदर्भ में अधिक व्यावहारिक रुख अपनाने की आवश्यकता है। अफगानिस्तान के साथ भारत के जुड़ाव के आलोक में चर्चा कीजिए।

The announcement of US withdrawal from Afghanistan and initiation of intra-Afghan talks have posed a new challenge for India.

India's ~~pol~~ Afghan Policy

1. Views Taliban as a threat to regional peace and security.
2. Apprehensions about Taliban being funded by Pakistan's ISI.
3. Any Afghan peace process should be Afghan owned, Afghan led.

Recent changes

1. Taliban has been accepted as an important stakeholder for peace talks.
2. Even countries like US, Afghan which earlier led a fight against Taliban are engaging with it

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3. Afghan Government has recently agreed for prisoner swap agreement with Taliban

Thus, this calls for a change in India's Afghan policy. Some of the important aspects are mentioned below:-

1. Taliban already owns more than 40% of Afghanistan
2. Advancements made in setting democratic institutions can be preserved by engaging with Taliban
3. A distanced engagement can help reduce Pakistan's influence in Afghanistan.

Thus, peace in Afghanistan is important for India's regional prosperity. Changing geopolitics, withdrawal of US from world order signals for India to gear up it's foreign policy so that it can emerge as an independent pole in post-COVID world order.

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10. In the geo-strategic context of West Asia, the recent efforts to normalise relations between Israel and UAE may open new possibilities for India. Analyse. **(150 words) 10**

पश्चिम एशिया के भू-रणनीतिक संदर्भ में, इजरायल और यू.ए.ई. के मध्य संबंधों को सामान्य बनाने के लिए हाल ही में किए गए प्रयासों से भारत हेतु नई संभावनाएं उत्पन्न हो सकती हैं। विश्लेषण कीजिए।

Abraham Accord, signed between Israel and UAE signals a new normalisation trend in West Asia politics.

Geo-strategic importance of West Asia for India

1. West Asian countries are a major source of crude oil for India. (Iraq being the highest)
2. Important ~~ports~~ ~~the~~ sea-lines of communication, including strategic locations like Bab-al-Mandeb are important for Indian trade.
3. Three poles of West Asia - Israel, Saudi Arabia and Iran have their respective importance in India's foreign relations.

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New possibilities for India

1. Balancing the walk on tight rope between three poles was main challenge. This has been eased due to normalisation of relations.
2. India's interests in UAE (rich diaspora, largest remittance source) and dependence on Israel's technology can be streamlined.
3. This can pave way for two state solution of Israel-Palestine which was India's stand.
4. This can pave way for Israel's further ties with Saudi Arabia, which is already shedding it's conservative policies.

A stable west Asia can have multiplying effect on peace in the neighbourhood Afghanistan. Thus the time is ripe to engage collectively with west Asian countries to secure India's position among new world order.

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11. It is not only the content of election manifestos but also the past performance with respect to promises made in election manifestos that need to be regulated. Discuss. **(250 words) 15**

केवल चुनावी घोषणा-पत्रों की विषयवस्तु को ही नहीं, बल्कि चुनावी घोषणा-पत्रों में किए गए वादों से संबंधित विगत निष्पादन को भी विनियमित किए जाने की आवश्यकता है। चर्चा कीजिए।

Elections are the bedrock of democracy and election manifestos form an important part of it. It outlines the policies of the political party, which it promises to pursue once in power.

Issues with election manifestos

1. Focus on populist agendas
2. Unrealistic promises made during elections result in voter apathy to election process.
3. Promises ~~of~~ involving large financial impact, like farm loan waivers result in considerable impact on state finances.
4. No legal mechanism about ~~legal action~~ holding political parties accountable for fulfilling election manifesto.

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5. Similar election manifestos of all competing political parties with difference only in decorative language reduces the choice of voters.

6. The loosing party/~~party~~ in opposition later opposes same policies which it had earlier promised.
Examples of Farm bills being protested by opposition parties.

Election Commission's directives

1. Election Commission has issued guidelines for political parties to ~~reter~~ highlight their plans of sourcing required finances to fulfill poll promises.

2. Wide publicity by Election Commission among the voters about their value of vote and making informed choice helps them analyse election manifestos objectively.

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Although no legal mechanism can be introduced for holding political parties accountable for not fulfilling past promises, following steps can be taken:

1. Educating voters to compare past manifestos
2. Political parties to focus on issues of public concern and progressive nature.
3. Dissuade from populist measures.

Tweaks in Model Code of Conduct, RPA 1951 and better voter awareness are important steps to fulfill the democratic role of elections.

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12. In order to achieve a reduction in the pendency of cases and a return to the Supreme Court's original role as a final appellate court, setting up of a National Court of Appeal is the need of the hour. Discuss. **(250 words) 15**

लंबित वादों की संख्या में कमी लाने और उच्चतम न्यायालय को अंतिम अपीलीय न्यायालय के रूप में उसकी मूल भूमिका में पुन: स्थापित करने के लिए, एक राष्ट्रीय अपील न्यायालय स्थापित करना समय की आवश्यकता है। चर्चा कीजिए।

Indian Judiciary, with 3.5 crore pending cases, is considered a dilatory chamber of democracy.

Reason for pendency

1. Special Leave Petitions (SLPs) form more than 60% of pending cases. It's liberal use has increased the workload of apex court.
2. Wide interpretation of Article 21 and Article 19 have increased the number of writ petitions under Article 32.
3. Number of judges in Supreme Court compared to 1.3 billion population is very small.
4. Retirement age of 65 years (against no retirement age in US) results in considerable talent being unused.

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Consequences of pendency

1. In 1950s, it was common for Supreme Court to constitute more than 100 Constitutional benches in a year. This has reduced to less than ten today.
2. Apex court is burdened with questions of law and facts already settled.
3. Judiciary's role as final interpreter of Constitution is effected.

National Court of Appeal : A solution

Proposed solution is :-

1. Setting a Constitutional bench of Supreme Court at Delhi, dealing with only Constitutional matters.
2. National Court of Appeal, with four chambers in Delhi, Mumbai, Madras and Calcutta — to deal with appeals from High Courts.

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Proposed benefits

1. Wider public reach and increased access to justice due to regional benches.
2. Constitutional Court, being solely focussed on wider questions of Constitution interpretation would help it evolve in contemporary circumstances.
3. Greater number of judges would help reduce the pendency.

Issues involved

1. ~~Crit~~ Supreme Court has raised an objection of such step effecting the integrated nature of judiciary.
2. Parallel adjudications by National court of Appeals ~~and~~ benches may result in interpretational challenges.

Digitizing the judicial processes, incorporating IT infrastructure alongwith setting up National Court of Appeals are steps to strengthen Indian Judiciary.

Don't write anything this margin (इस भाग में कुछ ना लिखें)

13. The Constitution of India reflects an amalgamation of spirit of Indian freedom struggle and various administrative provisions of different acts of British rule in India. Explain. **(250 words) 15**

भारत का संविधान भारतीय स्वतंत्रता संघर्ष की भावना और भारत में ब्रिटिश शासन के विभिन्न अधिनियमों के अनेक प्रशासनिक प्रावधानों के मिश्रण को दर्शाता है। व्याख्या कीजिए।

Indian Constitution is the result of detailed ransacking all constitutions of the world. Even greater role is played by the values ingrained during freedom struggle as well as the administrative experience of different acts under British rule.

Spirit of Indian freedom struggle reflected in Indian Constitution

1. Values of secularism, fraternity were enshrined in all movements during freedom struggle.
2. Nehru Report, 1928 included demand for fundamental rights, which have been incorporated in Part - III.
3. Weakness of strong centre led to British occupation of India. Hence,

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federal structure with unitary bias has been envisaged through the provisions like :-

(i) Appointment of Governor by Centre

(ii) Emergency Provisions (Article 352, 356, 360)

(iii) Important ~~[illegible]~~ subjects of legislation under Union list of Schedule - VII.

(iv) Provisions allowing Rajya Sabha to pass resolution to allow Parliament legislate on State list subjects.

4. Gandhian principles of decentralised local government and importance of Khadi have been incorporated in Directive Principles of State Policy.

Borrowing from British period Acts

1. 2/3rd of Indian Constitution is based on the Government of India Act, 1935. ~~[illegible]~~ Important provisions are :-

(i) Federal character of nation

(ii) Bicameral legislature

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(iii) Manner of elections for state legislatures

(iv) Division of powers on basis of Union list, State list & Concurrent list.

(v) Provision of a federal Public Service Commission and Joint Public Service Commission

2. Other Acts and resolutions of British period reflected in Indian Constitution are mentioned below:-

(i) Lord Rippon's Resolution on Local Self Government - in DPSP of original constitution.

(ii) Indian Councils Act, 1909 provided for direct elections for first time.

(iii) Question Hour was introduced in Indian Councils Act, 1892.

(iv) Portfolio System through Indian Councils Act, 1862.

Thus Indian Constitution is an example of intelligent amalgamation of values of freedom struggle and different acts of British rule.

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14. Mention the key components of the SVAMITVA scheme. Also, highlight its intended benefits and discuss the potential issues in its implementation. **(250 words) 15**

स्वामित्व (SVAMITVA) योजना के प्रमुख अवयवों का उल्लेख कीजिए। साथ ही, इसके अपेक्षित लाभों को रेखांकित कीजिए तथा इसके कार्यान्वयन में संभावित मुद्दों पर चर्चा कीजिए।

SVAMITVA scheme aims at providing integrated property validation solution for rural India.

Key Components

1. Digitisation of all land records in rural areas.
2. Use of drone technology for property mapping.
3. Geotagging of properties for better digital records.
4. Consolidation of panchayat land records of all villages in a district for better project management.
5. Publishing of records generated during the scheme with village panchayats

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and District Development Authorities.

Intended Benefits

1. Digital record of all land held by panchayats can help in better land utilisation.
2. Encroachments on public land can be brought to light.
3. Increased avenues for rent and tax collection for Panchayats.
4. Better developmental plans with land data on hand for better utilisation.

Issues in implementation

1. Lack of land titles to most of rural economy would be an obstacle.
2. Expanding the scheme to such large rural population shows infrastructural challenges.

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3. Lack of digital literacy in most rural areas hinders their ability to use scheme benefits.

The scheme posts a tall order but there is no alternative to begin. Pilotting the scheme in selected states and then expanding the same pan India is a wise step.

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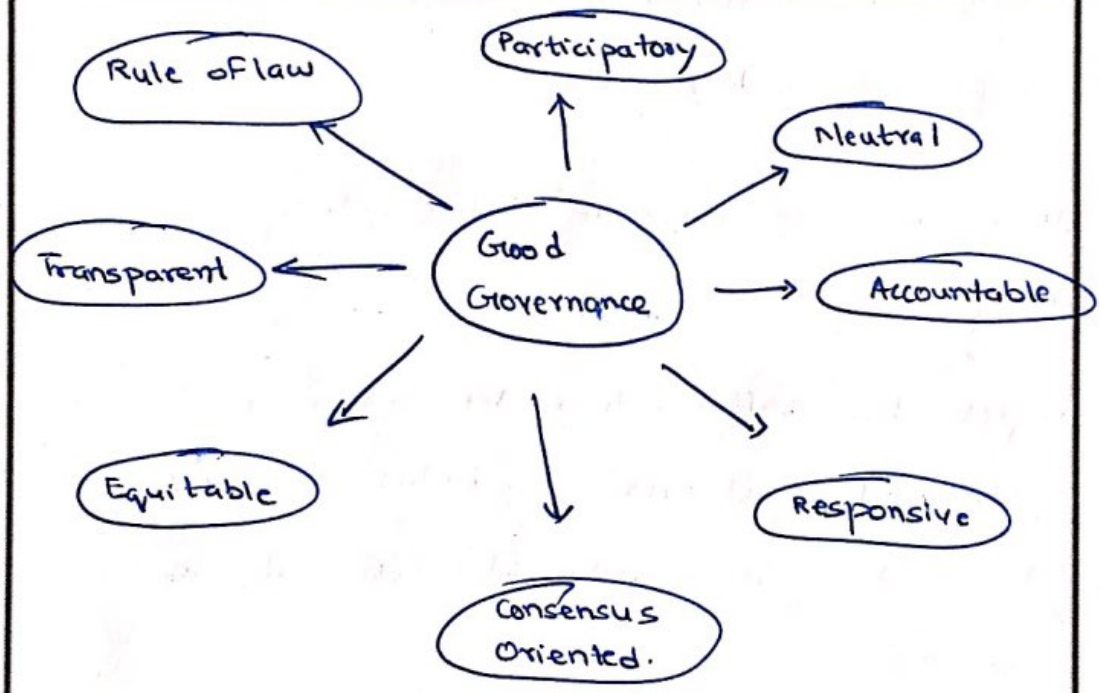
15. Sharing of information among all stakeholders in government functioning is a leading practice towards good governance. Discuss with examples.

(250 words) 15

सरकारी कार्यप्रणाली में सभी हितधारकों के मध्य सूचना को साझा करना सुशासन के लिए एक महत्वपूर्ण परिपाटी है। उदाहरणों के साथ चर्चा कीजिए।

Good Governance refers to the act which comprises of the existence of effective mechanisms, processes and institutions through which citizens and groups articulate their interests, exercise their legal rights, meet their obligations and mediate their differences.

UNDP - Essential elements of Good Governance



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Among all these values, transparency is considered the key to all other values.

Transparency & Good Governance linkage

1. The citizens can make informed decisions
2. Better information flow would create awareness among citizens.
3. Grievance Redressal Mechanisms can be utilised properly.
4. Information availability with policy makers can help them ~~be~~ formulate better implementable policies.
5. Scope of policy reforms increase.

Mechanisms to improve informating sharing

1. Right to Information Act, 2005 is considered bulwark of India's journey to good governance. It's ~~the~~ outcomes involve :-

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(i) Better access to information

(ii) Suo moto disclosures by government functionaries improves responsiveness

(iii) Many scams have been unearthed example - Commonwealth Scam, 2G Scam

(iv) Citizen empowerment with better knowledge.

2. Citizen's Charter - based on Sevottam model has increased service delivery in government institutions.

3. Social Audits involve access to information to beneficiaries of schemes who scrutinize the account statements of public servants

Thus transparency and better information access forms bedrock of good governance.

Don't write anything this margin (इस भाग में कुछ ना लिखें)

16. India has an oversized and bloated government which acts as a drag on economic efficiency and growth. Critically evaluate. (250 words) 15

भारत में आवश्यकता से अधिक आकार और अतिशय दायित्वों को वहन करने वाली सरकार है, जो आर्थिक दक्षता एवं वृद्धि के संबंध में एक अवरोध के रूप में कार्य करती है। समालोचनात्मक मूल्यांकन कीजिए।

Too much government may be harmful for good governance. This has been amply exemplified by the effect of Indian oversized goverment on it's economic efficiency and growth.

Effects of bloated government

1. Over-regulation - A single subject is looked after by many ministries. Example - Transportation is handled by five separate ministries.
2. Increase in red-tapism.
3. Ease of doing business is hampered.
4. Poor service delivery due to lack of clarity about final responsibility among service providers.

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Viewing these limitations, the motto of new government formed in 2014 was - Minimum Government Maximum Governance

Some of the initiatives taken were:

1. Reducing the number of empowered group of ministers.
2. Combining ministries with similar responsibilities.
   Example – Recent formation of Jal Shakti ministry.
3. Digitising maximum dealings with public to reduce human contact and improving transparency.
4. Establishing a robust grievance redressal mechanism to report about any discrepancies in government functioning.
5. Introduction of economic reforms

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like GST, e-way bill, ease of online tax filing, etc have helped improve ease of doing business.

6. Corruption Perception Index, released by Transparency International has improved

In this way, minimum government but better governance can provide better service delivery and lead to overall economic growth of the nation.

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17. Though the National Digital Health Mission is a step in the right direction for both patients and the healthcare system, concerns around data privacy need to be addressed. Examine. **(250 words) 15**

यद्यपि राष्ट्रीय डिजिटल स्वास्थ्य मिशन रोगियों और स्वास्थ्य देखभाल प्रणाली, दोनों के लिए उचित दिशा में उठाया गया एक कदम है, तथापि डेटा गोपनीयता से जुड़ी चिंताओं का समाधान किए जाने की आवश्यकता है। परीक्षण कीजिए।

National Digital Health Mission envisages exploiting the advances in information and technology for furthering Health security for vast population of India.

Components of National Digital Health Mission

1. DigiHealth ID
2. Patient Medical Record Systems
3. Digital Infrastructure Registry
4. Oversight mechanism for data sharing protocol.

Benefits of NDHM

1. Ensuring last mile Health services delivery using IT tools like telemedicine, online consultations.

Example - eSanjeevani app connects

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hitherto unserved rural population with doctors of their choice.

2. Creating digital identification for all consenting patients, which can be used in all hospitals.
3. Integration of health records scattered in various place to chart a medical history for better diagnosis.
4. Rationalisation of available health infrastructure by creating infrastructure database.

Although these seem steps in the right direction, following issues remain,

Issues

1. Lack of digital infrastructure in rural areas where only 13% population has internet connection.
2. Collection of huge data would increase data security concerns.

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3. Making digiHealth id would violate Right to Privacy under Article 21.
4. Puttaswamy Judgement outlined the criteria for limiting the data collection & use that can negatively affect a person's privacy.
5. Absence of robust data protection regime. ~~Bill~~ The bill for digital privacy tabled in 2019 is still pending.

Industry 4.0 has huge potential for providing Health services to every nook and corner. Legislating a strong privacy law is thus a precondition to balance individual fundamental rights and basic service delivery.

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18. One Nation One Ration card has the potential to significantly transform the lives of migrant workers in India. Analyse. **(250 words) 15**
वन नेशन वन राशन कार्ड में भारत में प्रवासी श्रमिकों के जीवन को महत्वपूर्ण रूप से रूपांतरित करने की क्षमता है। विश्लेषण कीजिए।

The plight of migrant labourers during lockdown imposed by COVID-19 pandemic has brought to light the importance of One Nation One Ration Card.

About the scheme

One Nation One Ration card would allow nationwide portability for a ration card holder, without being bound to one fair price shop.

Issues with current system

1. A person is bound to procure ration from single fair price shop. This reduces any competition for fair price shops to improve service delivery.
2. Migrant labourers are left out of the scheme as their ration card

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is of no value in place of immigration.

3. Unutilised ration leads to two kinds of problems:-
   (i) wastage and rotting in government godowns
   (ii) Black marketting of undistributed rations by FPS owners
4. Food security of vast population remains at risk.

Benefits of One Nation One Ration Card

1. A person can get his ration from any fair price shop in the country.
2. A migrant labourer would be able to withdraw 50% of the ration, thus keeping the family members safe from any misuse.
3. The beneficiary would be entitled to subsidised grains provided by Union government only. State specific subsidies would not be provided.

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4. Will allow greater mobility to the migrant workers.
5. The unaccounted public distribution rations would reduce
6. Huge stocks with government godowns can be liquidated, thus reducing storage costs as well as wastages.

Census 2011 showed India having 65 million internal migrants in India. One Nation One Ration Card is a step forward for ensuring food security for such a large population. Further steps like digitisation and seeding with Aadhar card would go a long way towards serving basic needs of society.

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19. The World Trade Organization is buffeted by multiple challenges which have eroded the credibility of the organization. Analyse. **(250 words) 15**
विश्व व्यापार संगठन कई चुनौतियों से ग्रस्त है, जिसने संगठन की विश्वसनीयता को समाप्त कर दिया है। विश्लेषण कीजिए।

World Trade Organisation was established in 1995 under the Marrakesh Treaty, as a successor to General Agreement on Trades and Tariffs (GATT).

After more than two decades of existence, WTO is facing several challenges :-

1. Increasing protectionist policies by developed countries, like :-
   1.1 India removed from Generalised System of Preferences (GSP) by United States
   1.2 Heavy import duty on imports of steel, aluminium products by United States
2. The trade wars between countries (mainly United States and China) is

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questioning the trade liberalisation regime.

3. Appointments to Appellate body of WTO have been held back by advanced countries
4. Increasing reliance on Free Trade Agreements (FTAs) has created new hindrances to liberal trade.
5. ~~Non-technical~~ Technical and non-tariff barriers to trade have increased considerably.
6. Doha Round of WTO has been unable to be concluded since 2001.

Given these circumstances, it seems that the WTO as a body to ensure free world trade has failed. However a closer look signifies it's importance even today :-

1. Tariff barriers have come down by 80% as compared to 1960s.

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2. Developing countries have been able to increase their national incomes due to favourable policies by developed nations.

3. WTO provides an international platform to discuss emerging challenges as data localisation, e-commerce, etc

World Trade Organisation's contemporary relevance can further be improved by de-politicizing it's appointment process to Appellate body and concluding the Doha round of talks to provide a sustainable future through an integrated, equitable world.

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20. BIMSTEC is indispensable for India's efforts in promoting regional cooperation and integration in the neighbourhood. Discuss. **(250 words) 15**
बिम्सटेक (BIMSTEC) पड़ोस में क्षेत्रीय सहयोग और एकीकरण को बढ़ावा देने की दिशा में किए जाने वाले भारत के प्रयासों हेतु अपरिहार्य है। चर्चा कीजिए।

Bay of Bengal Initiative for Technical and Economic cooperation is a regional group of seven countries sharing borders with Bay of Bengal and two other regional members.

Importance of BIMSTEC for regional cooperation

1. BIMSTEC provides an opportunity for leveraging ties with neighbouring

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countries for development of north-east India. Projects like Kaladan multimodal project can be streamlined.

2. An important component of Act East policy. Myanmar and Thailand can be our gateways to ASEAN countries.

3. The poor performance of SAARC due to India Pakistan rivalry increases the relevance of BIMSTEC further.

4. Initiatives like BBIN Motor vehicle agreement can help in improving internation trade.

5. Increasing influence of China in India's neighbourhood can be countered.

6. Fulfilling India's ambition as a regional net security provider.

7. Better integration to prevent rise of extremism and terrorist activities through joint operations.

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Although being indispensable, BIMSTEC faces several issues :-

1. India unable to balance cheque book diplomacy of China.
2. BIMSTEC members consider it to be an India dominated grouping, and fear of big brotherly attitude of India.
3. Delay in important project implementation through BIMSTEC has hampered India's image.

BIMSTEC is a relatively younger grouping and it is too soon to judge it's success or failure. India must balance it's regional concerns, national security and international trade to get the best out of such regional cooperation.

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GENERAL STUDIES (TEST CODE : 1701)

Name of Candidate	Simrandeep Singh		
Medium Eng./Hindi	English	Registration Number	633402
Center	Online	Date	22/11/2020

INDEX TABLE

Q. No.	Maximum Marks	Marks Obtained
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12	15	
13	15	
14	15	
15	15	
16	15	
17	15	
18	15	
19	15	
20	15	

Total Marks Obtained:

Remarks:

INSTRUCTIONS

1. Do furnish the appropriate details in the answer sheet (viz. Name, Registration Number and Test Code).
   उत्तर पुस्तिका में सूचनाएं भरना आवश्यक है (नाम, प्रश्न–पत्र कोड, विद्यार्थी क्रमांक आदि)।
2. There are **TWENTY** questions printed in **ENGLISH & HINDI**
   इसमें बीस प्रश्न हैं अंग्रेजी और हिन्दी में छपे हैं।
3. **All questions are compulsory.**
   सभी प्रश्न अनिवार्य हैं।
4. The number of marks carried by a question/part is indicated against it.
   प्रत्येक प्रश्न/भाग के अंक उसके सामने दिए गए हैं।
5. Answers must be written in the medium authorized in the Admission Certificate, which must be stated clearly on the cover of this Question-Cum-Answer (QCA) Booklet in the space provided. No marks will be given for answers written in medium other that the authorized one.
   प्रश्नों के उत्तर उसी माध्यम में लिखे जाने चाहिए जिसका उल्लेख आपके प्रवेश पत्र में किया गया है और उस माध्यम का स्पष्ट उल्लेख प्रश्न–सह–उत्तर (क्यूसीए) पुस्तिका के मुख्य पृष्ठ पर अंकित निर्दिष्ट स्थान पर किया जाना चाहिए। उल्लिखित माध्यम के अतिरिक्त अन्य किसी माध्यम में लिए गए उत्तर पर कोई अंक नहीं मिलेंगे।
6. Word limit in questions, if specified, should be adhered to.
   प्रश्नों में शब्द सीमा, जहाँ विनिर्दिष्ट है, का अनुसरण किया जाना चाहिए।
7. Any page or portion of the page left blank in the Question-Cum-Answer Booklet must be clearly struck off.
   उत्तर पुस्तिका में खाली छोड़ा हुआ पृष्ठ या उसके अंश को स्पष्ट रूप से काटा जाना चाहिए।

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Plot No. 857, 1st Floor, Banda Bahadur Marg (Opp Punjab & Sindh Bank), Dr. Mukherjee Nagar Delhi- 110009

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EVALUATION INDICATORS

1. Contextual Competence
2. Content Competence
3. Language Competence
4. Introduction Competence
5. Structure - Presentation Competence
6. Conclusion Competence

Overall Macro Comments / feedback / suggestions on Answer Booklet:

1.

2.

3.

4.

5.

6.

All the Best

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1. Explain the concept of volcanic winter giving examples.

Volcanic winter refers to the drop in global temperatures as a result of volcanic explosion.

Phenomenon of Volcanic winter

1. Volcanic eruptions spew out various gases like sulphur dioxide (SO_2), and a lot of ash particles in addition to the molten lava.
2. These gases spread in the stratosphere, leading to reduced insolation.
3. The ash particles/aerosols also absorb the ~~reflecte~~ radiated heat from the earth's surface, further reducing the temperatures.
4. Moreover the aerosols act as a perfect condensation nuclei, resulting in cummulonimbus clouds of high density. This further reduces the

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insolation and a further drop in global temperatures.

Effects of Volcanic winter

1. Many species become extinct. The disappearance of dinasours is also believed to be due to volcanic winter.
2. Sulphur dioxide emitted from volcanoes combines with water to precipitate as acid rain, thus damaging the life form on earth.
3. The nutrition cycles of the earth get unbalanced.
4. Ocean acidification also is observed, which adversely affects the marine life.

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2. Bring out the importance of community based disaster management in India.

India has witnessed a number of local disasters in the past decades like landslides, urban flooding, droughts, avalanche, etc. Community based disaster management provides an important tool to cope with such disasters.

Importance of Community based DM

1. Local expertise - The local people have varying skill sets that can be helpful in speedy rescue operations.

2. Resource deployment - In a scenario when the affected area is cut off from rest of the country, resources available locally can be utilised.

3. Decentralised planning helps in local needs based disaster specific planning which is more effective

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4. Community participation makes the whole process more inclusive.

5. Vulnerability reduction and risk mitigation strategies are more effective when community is involved.

Thus, it is important to look into community participation in disaster management, when climate related disasters are expected to increase in 21st century. This has also been emphasised in the Sendai Framework (2015-2030) for disaster risk reduction.

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3. The concept of ecological footprint is a useful indicator for assessing progress on the sustainable use of resources in a country. Explain.

Ecological footprint refers to the amount of terrestrial or aquatic resources needed to sustain the current human activities and also handle the waste generated by them.

Ecological footprint as an indicator

It is usually expressed in hectares of land required for a population to be sustained. It acts as an indicator for sustainable use of resources as below:-

1. Provides easy corelation between available resources and current level of consumption.
2. Helps compare resource efficiency among different economies, thus helping in better planning.

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3. Provides a tool to measure inter-generational equity in resource utilisation.

4. An ecological footprint exceeding the country's present resources becomes a policy imperative for any government.

5. A mechanism to reflect upon the profile of energy sources of a country.

~~Thus~~, United Nation's sustainable development goals also highlight the importance of ecological footprint and it's importance to measure the sustainable use of resources.

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4. The CRZ Notification, 2018 aims to maintain a balance between economic growth and conservation principles of coastal regions. Discuss

The Government of India has notified Coastal Regulation Zone Notification, 2018 to regulate the activities in the sensitive coastal areas.

It aims to strike a balance between economic growth and environmental conservation as below:

Environmental Conservation

1. All the islands have been provided with a no development zone (NDZ) of 20m.
2. NDZ of 20m is also provided for coastal backwaters.
3. Special facilities for reducing pollution have been permitted in coastal areas
4. Integrated Management Plans (IMPs) have

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to be developed for critically vulnerable and ecosensitive areas.

Economic Growth

1. The floor space index (FSI) has been relaxed for CRZ-II areas i.e. urban areas. This would improve urban housing facilities
2. Tourism infrastructure has been permitted in the NDZ but it has to be temporary. (toilets, changing rooms, etc.)
3. The clearance for developmental projects has been streamlined.

	Authority for Clearance
CRZ - I	Central Government
CRZ II -	State Government
CRZ III	State Government
CRZ - IV	Central Government

However ther are concerns raised by ~~sect~~ section of citizens that this process of CRZ notification has not been consultative. and such developmental activities can negatively affect the livelihoods of fishermen villages on the Indian coast.

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5. Fertilizers have been one of the key inputs in the agricultural sector since Green revolution in India. In this context, give an account of distribution of fertilizer industry in India.

The improved irrigation facilities and high yield varieties (HYV) seeds during green revolution have resulted in increased use of fertilizers manifold. The self-sufficiency of India's food needs can be attributed to the revolution.

Fertilizers are still the most important inputs for agriculture with an average use of 130 kg per hectare in India. The distribution of fertilizer industry in India is shown below:

1. Near petroleum refineries - The naptha based fertilizer industries are based adjacent to the petroleum refineries. Some of the locations are - Panipat,

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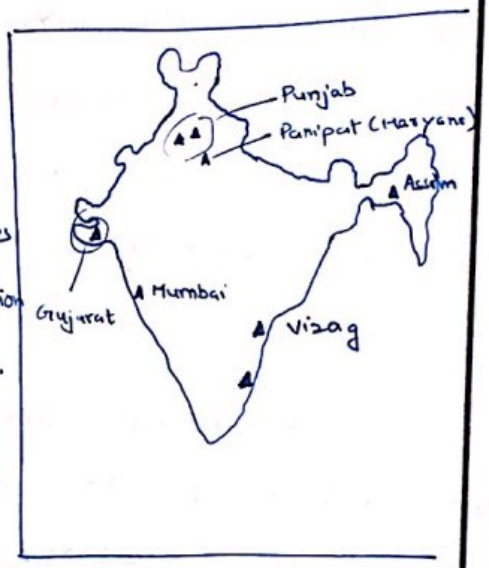
Bombay, Vishakhapatnam, Gujarat, Assam, and others.

2. Import dependent - Most of the natural gas required for manufacturing urea is imported. Hence such industries are situated at ports.

3. Pipeline based

The laying of pipelines has helped in dispersion of fertilizer industry. Examples are - Ropar and Bathinda in Punjab, etc.



4. Phosphate based - Most of these are dependent on locally available raw material and located in Rajasthan, Madhya Pradesh.

Fertilizer Industry is one of the core industries of India and has witnessed rapid growth in the past decades.

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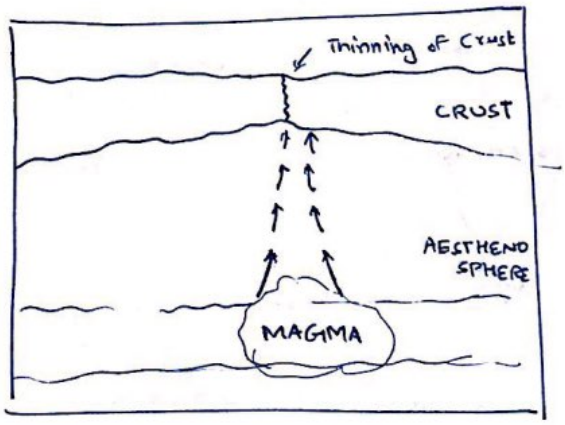
6. Giving example, explain how continental rupture ultimately results in formation of a new ocean basin.

Continental rupture refers to the thinning and eventually rupturing of continental crust as a result of various endogenic forces.

Phenomenon of continental rupture and formation of new ocean basin

1. Cause – whenever the ~~ocean~~ continental crust is situated above a hotspot, it experiences thinning of the crust. Gradually the crust starts cracking.



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2. As the crust ruptures, it starts moving away from the crack, forming a divergent plate boundary.

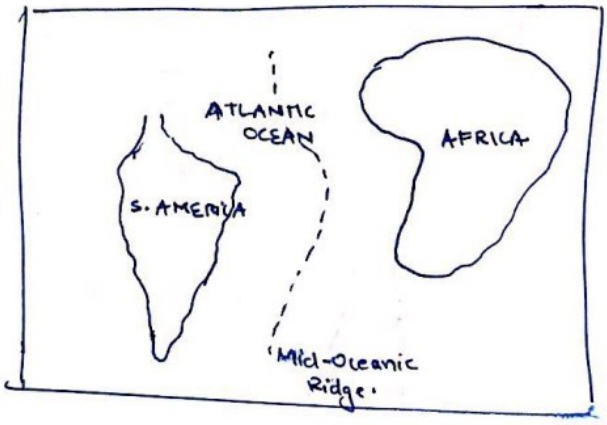
East African Rift Valley is an example of this stage.

3. Gradually, the rift widens and allows the ocean water to accumulate inside it.

The floor keeps spreading (as per sea-floor spreading hypothesis) and the ocean grows in size, with mid oceanic ridge between it.

Atlantic Ocean is an example of this stage

4. This can be observed by the near perfect fit of the diverging landmasses.



Thus the phenomenon of continental rupture and ocean formation represents the dynamic nature of the earth.

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7. COVID-19 has exposed gaps in India's domestic laws to deal effectively with outbreaks of infectious diseases, especially pandemics. Discuss

COVID-19 has tested the effectiveness of the global healthcare infrastructure. The outcomes are not so comforting in most parts of the world, including India.

~~The~~ legal

Legal structure for pandemic in India

The governments of centre and state depended on two laws to deal with the pandemic :-

1. Disaster Management Act, 2005
2. Epidemics Act, 1896

Gaps observed

1. COVID-19 was the first pandemic observed ~~at~~ under the present constitutional machinery, thus proving a disadvantage of no prior experience.

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2. Pandemics were not included in the 'notified disasters' till now.
3. Severe restrictions were placed by the central government on the people. However the responsibility to lift these were left to the states.
4. States, with limited financial capacity were found unable to provide even the basic needs to people. (like water, food for needy).
5. The haphazard reverse migration brought to light the lack of institutional mechanism for interstate coordination in times of crisis.
6. National Disaster Response Fund and State Disaster Response Funds were found to be insufficient to the needs.

COVID-19 pandemic is the first but certainly not the last to strike. It is imperative to learn from the problems witnessed and strengthen the regulatory mechanism to handle such pandemics in future.

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8. Give an account of the increasing frequency of cyclonic activity in Arabian Sea region.

Arabian sea region is believed to be less cyclone prone as compared to the Bay of Bengal area. Cold sea surface temperatures, high wind shear are some of the reasons for this.

However the number of cyclones in the Arabian sea have increased manifold since 2000. Some of the recent cyclones have also been of severe category. Nisarga is an example. An account of this is given below:

1. Indian Ocean dipole (IOD), which is the see-saw arrangement in sea surface temperatures of west Indian Ocean and the Pacific Ocean has been positive in recent decades. This has resulted in warmer Arabian sea.

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2. Global warming has resulted in disturbance of heat redistribution by jet streams, resulting in warmer Arabian sea.

3. Increase in evaporation rates has resulted in low wind shear in Arabian sea, which promotes cyclone formation.

4. Greater warming results in more buoyant surface waters and less intermixing. This increases the sea surface temperatures.

Given the changing global climate patterns, such climate related disasters are bound to increase. UN office for Disaster Risk Reduction (UNISDR) calls for institutional & infrastructural enhancement to deal effectively with such unavoidable disasters.

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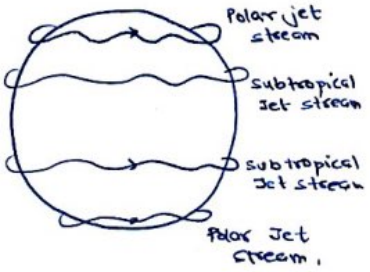
9. Explain the phenomenon of sudden stratospheric warming witnessed in recent years. How does it affect the ozone hole formation over Antarctica.

Sudden stratospheric warming refers to a dramatic rise in temperatures of the stratosphere. It is mostly observed in the northern hemisphere, although now observed in southern hemisphere as well.

Phenomenon

Upper stratosphere witnesses jet streams which are strong westerly winds. Polar jet streams are of important concern to understand sudden stratospheric warming.



When sun approaches the southern hemisphere this polar jet stream weakens

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This results in rapid rise in temperature of the stratosphere.

Effect on ozone hole formation

Due to ~~ozon~~ stratospheric warming, there are lesser polar stratospheric clouds formed. Thus the ozone depleting substances are unable to carry out the reactions which release chlorine and Bromine.

Thus, the ozone hole formed over Antarctica ~~heals~~ slowly diminishes with time. This has been observed in the recent years.

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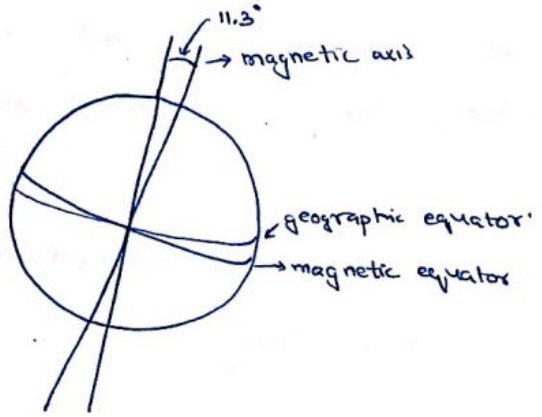
10. Write a brief note on Earth's magnetism and it's role in protecting the Earth from solar winds.

Earth's magnetism behaves like a giant bar magnet placed at the core of the earth. The magnetic axis or magnetism of earth is a dynamic phenomenon and keeps changing with geological timeperiods.

Reason for earth's magnetism

The most acceptable explanation is the presence of convection currents in the molten iron and nickle (NiFe) layer in outer core of the earth. These currents induce magnetic field around the earth.



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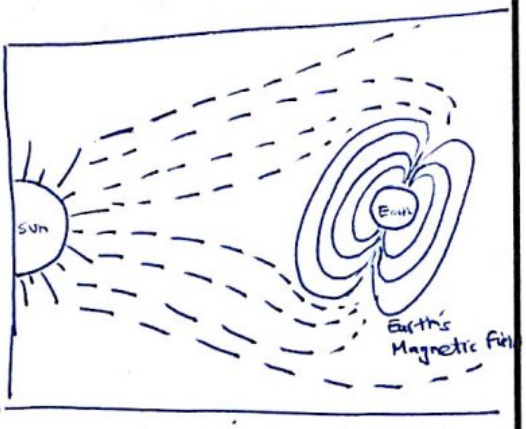
Mechanism of protection from solar winds



1. The earth's magnetism forms a shield of magnetosphere around the earth.
2. The solar winds, which consist of charged particles are continuously directed outwards from the sun.
3. Magnetic field of earth deflects these particles and preventing them from entering the stratosphere, which contains important ozone. Destruction (or ionization) of ozone gas would result in ultraviolet rays reaching earth surface and damaging life form.
4. Phenomenon of aurora bureal is and aurora australis occur at north and south pole respectively due to ionization effect by ~~सूर्य~~ solar winds.

In this way, earth's magnetism makes the planet earth a living planet

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11. How does climate change affect the process of desertification?

United Nations Convention to Combat Desertification (UNCCD) defines desertification as the deterioration of land in arid, semi-arid areas due to reasons varying from human to climate change.

Although, the main reason for desertification are human activities like unsustainable agricultural practices, ~~extension of~~ deforestation, disappearance of green belts, etc. But the process is accelerated due to climate change, as mentioned below:

Desertification due to climate change

1. Rainfall patterns have changed drastically due to climate change, thus affecting the soil productivity. and thus desertification.

2. Drought prone areas have gone upto one third of country's land areas.

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3. Increasing events of sudden and heavy rainfall result in soil erosion at a very fast rate.

4. Lower rainfall results in high dependence on groundwater, thus resulting in fall in groundwater levels. This fall is as severe as 70–110 cm per year in areas of Punjab.

5. Instances of soil salinity have increased in various districts of Andhra Pradesh and Punjab.

6. Climate change results in reduction of soil organic carbon (SOC) content, which further affects productivity.

7. Himalayan regions have witnessed drop in average rainfall, resulting in many perennial streams turning dry. This will further result in drop in groundwater levels.

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Govt. of India has taken various steps to combat desertification. Some of these are mentioned below:-

1. Signatory to UNCCD
2. Bonn Challenge declaration to increase the ~~addi~~ restoration area of 8 million Hectares by 2030 (in addition to 13 million Hectares by 2020)
3. Target to achieve Land Degradation Neutrality (LDN) by 2030, as part of SDGs of UN.

Increasing population and it's needs, changing climate and increasing climate related setbacks pose a challenging triad for India. A wise and sustainable use of all the resources, including land is the need of the hour.

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12. Discuss the increasing need of 'disaster resilient infrastructure' in India. Mention the steps taken in this direction with specific reference to the Global Coalition for Disaster-Resilient Infrastructure.

Disaster resilient infrastructure means such type of infrastructure that can withstand the natural or man made disasters, thus reducing the risk and vulnerability of the population.

Increasing Need ?

1. Frequency of climate related disasters has increased.
2. Reactive strategies (providing relief, rescue, etc.) prove to be challenging and a drain on resources.
3. Increasing population has led to problems like haphazard urbanisation, low standard housing infrastructure, etc.

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4. Vulnerable sections of society are at high risk during disasters. Resilient infrastr. would reduce these risks

Steps taken for Disaster Resilient Infrastructure

Global Coalition for Disaster Resilient Infrastructure ~~the~~ in an India-led initiative to mitigate the risk posed by various disasters. Some of the steps undertaken are mentioned below:

1. A common institutional setup to coordinate among different nations during disasters.
2. ~~Bas~~ Mechanism to finalize the standards of disaster proof infrastructure for disaster prone areas.
2. Use of technology for zone mapping and vulnerability risk assessment with

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respect to various disasters.

3. Building of shelter homes for coastal areas has been a successful initiative. This helped in better evacuation plan implementation during cyclone Amphan.

The need for disaster resilient infrastructure is also emphasised in 'Sendai Framework for Disaster Risk Reduction (2015-30)'. Thus a focus should be kept on 'build back better' to invest in a safe & resilient infrastructure. The same has been highlighted in the National Disaster Management Policy (NDMP), 2019.

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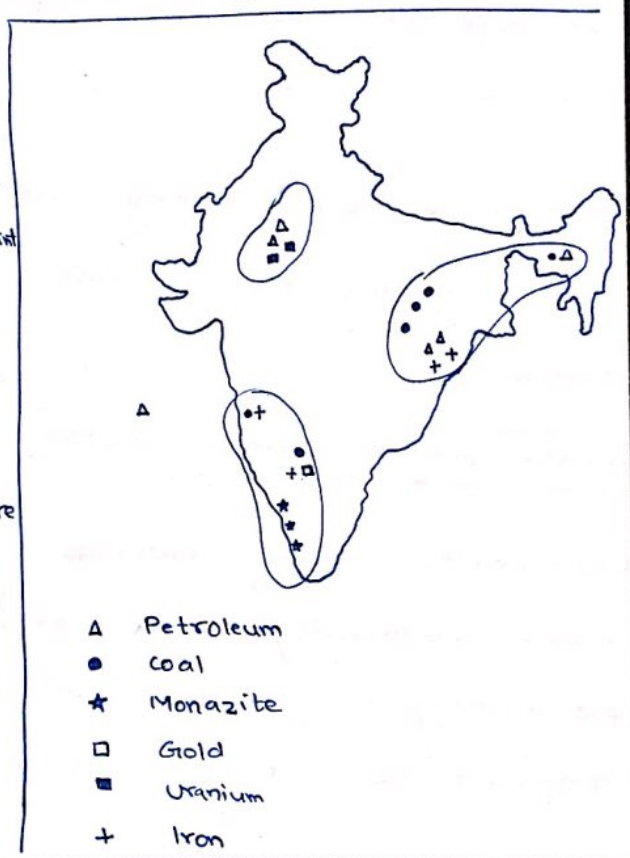
13. Identify the important mineral belts of India. Highlighting some of the issues plaguing the mining sector in India, discuss how the National Mineral Policy, 2019 aims to address these issues.

India is a resource rich country, endowed with a large variety of minerals like coal, petroleum, iron, bauxite, monazite, copper, gold, etc.

Mineral belts of India

1. North Eastern Belt - This includes important minerals like coal, iron ore, petroleum, etc. Imp. places are Jharia, Bokaro, Chattisgarh, Odisha, etc.



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2. North western Belt - Important minerals like copper, uranium, petroleum reserves, coal bed methane are found in Rajasthan (Khetri, Jodhpur), Madhya Pradesh, Gujarat, etc.

3. Southern Belt - States of Goa, Karnataka are rich in coal and iron ore. Coasts of Kerela are rich in monazite sand, an important mineral for future nuclear programme.

Although abundant minerals are found in India, yet it imports way more than it produces.

Issues plaguing mining sector

1. Unscientific mining methods lead to lower productivity. As an example, coal productivity is 16 t/OMS in India as compared to 60 t/OMS in Australia.

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2. Unstable policy environment discourages foreign and private investments in this sector.
3. Environmental concerns like - acid mine drainage, deforestation, land degradation etc. are a major issue.
4. Issues of rehabilitation have increased due to increasing population.
5. Labour laws and DGMS safety norms are flouted. As per NITI Aayog, only 8% mines are provided with regular Health checkup.
6. Illegal mining is believed to be 20% of total.

National Mineral Policy, 2019 addresses these as follows:

1. A long term policy guideline would attract FDI.
2. Provisions for on demand exploration license.
3. Policy outlined for collaboration with foreign entities for scientific exploration.
4. CSR expenditure can be used for R&D.
5. Strict implementation of DGMS rules.

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14. Not only is the spatial and temporal distribution of freshwater in India very skewed, but also it's usage inefficient and wasteful. Discuss in context of the current water crisis.

NITI Aayog's Composite Water Management Index, 2018 report indicates that by 2030, India's water demand would be double of it's available supply. This highlights the water crisis India is facing.

Spatial & Temporal distribution of freshwater

1. ~~Mos~~ Northern India, with it's Ganga, Brahmaputra & Indus basins has most of the freshwater with little present in peninsular rivers.
2. The alluvial acquifers are a good storage of freshwater as compared to the peninsular impermeable rocks.
3. Most of the rainfall (75%) in India

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is from south-west monsoon, concentrated in the months of June to October.

4. The Himalayan rivers have a perennial flow due to melt waters whereas the peninsular rivers run dry most of the year (except some like Kauvery)

Inefficient and wasteful usage

1. Agriculture uses 80% of the freshwater used. This is due to increased area under cultivation of water guzzling crops like sugarcane & paddy.
2. Only 8% of the rain water is utilised in India, rest being sent into oceans.
3. Frequent floods, lack of rivers interlinking result in waste of flood waters.
4. Inefficient irrigation ~~capacity~~ practices, like canal irrigation have low water use efficiency, as low as 35%.
5. Untreated waste discharge into rivers

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leads to deterioration of quality, making it unfit for use.

6. Unproductive subsidies like free electricity have resulted in drop in water levels, varying from 30 cm to 70-100 cm per year in areas like Punjab.

7. Inefficient management of dam waters leads to frequent droughts.

8. Ecological flow of rivers is affected by the developmental activities.

The current water crisis is bound to worsen in coming future. The NITI Aayog report predicts 21 cities to run dry by 2022. Thus important emphasis on rainwater harvesting, river interlinking, dam management, etc. needs to be given.

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15. Examine how resource efficiency can bring about multiple benefits along the three dimensions of sustainable development - economic, social and environmental - in India.

Resource efficiency refers to the judicious use of available resources to get the maximum output. It can be measured in terms of gross output per quantity of resources used.

It can prove beneficial with respect to the three dimensions of sustainable development i.e. economic, social and environmental.

1. Economic

1.1. ~~Around~~ Recent recession due to COVID-19 calls for extraordinary measures for speedy recovery. Resource efficiency can help GDP bounce back quicker.

1.2. India depends on imports for it's energy needs (80% of crude imported).

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Resource efficiency will help in bringing trade deficit down.

1.3 It would provide competitive advantage to the exporting industries.

1.4 Cost cutting is the main source of profit for industries nowadays. Resource efficiency provides the opportunity for the same.

2. Social

2.1 Around 22% of Indians live below poverty line. Resource efficiency would help in distributing the proceeds of development equitably.

2.2 Since government is the major player to provide basic needs services, it is found lacking in many fields like healthcare, education, etc.

2.3 It provides a way to ensure intergenerational equity.

2.4 It can help in better policy planning to ensure locally available resources are used wisely to uplift all sections of the society.

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3. Environmental

3.1 The rampant deforestation to exploit resources can be brought down.

3.2 Urban waste is a major environmental concern today. It can be brought down with resource efficient processes.

3.3 Effecient recovery of useful metals from e-waste can help in both ways - lower resource exploitation & lower waste.

3.4 Problems of air pollution (e.g. stubble burning), water pollution (Ganga river pollution), etc. can be brought down.

India ~~has~~ is in a tricky situation of parallel needs where it faces dilemma between poverty eradication as well as environmental safeguard. Resource efficiency can prove to be a ~~balancing~~ tool to bring equilibrium between the two.

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16. Highlighting the significance of unconventional hydrocarbons, discuss the issues faced in their exploration and extraction.

Unconventional hydrocarbons refer to those sources of energy which require unconventional scientific methods for their exploration and extraction. Some of it's examples are coal bed methane (CBM), polymetallic nodules, shale gas, shale oil, etc.

Significance of unconventional hydrocarbons

1. Conventional sources of hydrocarbons have proved to be environment polluting. Example -
   (a) Mercury, SO_2, PM emission from coal based thermal power plants
   (b) Incidents of oil spillages in oceans
   (c) Vehicular pollution
2. The available / explored reserves of conventional hydrocarbons are limited. Further exploration is proving to be a costly affair
3. Unconventional hydrocarbons are believed to be in huge reserves as compared

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to conventional ones.

4. The growth of developing countries in 21st century would witness a huge demand for energy. It can be met through unconventional hydrocarbons.

5. Cartelisation of energy suppliers have kept energy prices high in past. such monopoly can be avoided.

However the exploration and extraction of these hydrocarbons faces several issues.

Issues

1. Technological advancements are still in nascent stages.
   Eg.- India is still developing the technology to extract shale gas.

2. Concerns related to pollution & environmental degradation have arisen. like -
   2.1 Shale gas extraction requires fracking which can pollute the ground water, affect aquatic life.
   2.2 Polymetallic nodule (PMN) extraction can disturb the ocean carbon cycle leading to release of oceanic carbon

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into atmosphere leading to global warming.

3. Lack of internationally combined efforts to develop technology to explore these resources.

4. International Seabed Authority (ISBA) has alloted 80,000 km² in Indian Ocean to India for exploration. The Deep Sea Mission is still to take off for it's exploration.

Burgeoning population, increasing energy demands, degrading environment, global warming, etc. provide an impetus to look towards alternate sources of energy. However the same must be carried out keeping in mind the environmental responsibility.

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17. What is Soil Organic Carbon (SOC)? Identify various factors affecting SOC levels. Also, highlight the beneficial impacts of SOC on soil health and functionality.

Soil Organic Carbon (SOC) is the carbon content present in the soil, which is generally sourced from the dead and decaying matter of living and non-living organisms.

Factors affecting SOC

1. Climate - Warm and humid climate results in greater primary productivity, thus more SOC.
   Cold and dry climatic regions have lower decomposing capacity, thus leading to accumulation of SOC.

2. Rainfall / Precipitation - Greater precipation would mean greater primary productivity thus more SOC.

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3. Type of soil - Clayey soils have higher SOC as compared to the sandy soils.

4. Topography - Soils at higher latitudes are generally poor in SOC, whereas in the valley and at roots of mountains have higher SOC.

Beneficial impacts of SOC

1. Higher SOC is a good source of nutrient supply to the plants
2. It improves the granular structure of the soil thus improving the soil aeration.
3. It acts as the feeding matter of various dendritus organisms, which further help in improving the soil health.
4. Adequate amount of SOC provides better permeability to the soil. This helps in better water holding

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capacity of soils.

5. The soil tilth and suitability for various crops depends on the SOC present in it.

Soil organic carbon is an important indicator of soil health, as measured by UNCCD. Improvement in soil organic ~~the~~ carbon helps in better soil health, global carbon cycle stability and thus helps in mitigating the climate change.

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18. Ocean deoxygenation is one of the most detrimental, yet under reported side effects of human induced climate change. Identify the causes behind it. Also mention it's ~~social or~~ socio-economic and environmental implications for the world.

Ocean deoxygenation refers to the reduction in oxygen levels in the top layers of world oceans. It is also termed as hypoxia.

Causes of hypoxia

1. Eutroptrication is the increased nutrient supply to a water body. This results in increased primary productivity and thus increased oxygen consumption in oceans

2. Climate change results in warming up of oceans. warm waters hold less oxygen as compared to cold waters,

3. ~~Rise~~ Rise in temperatures leads to increased metabolism rate of aquatic

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animals, thus depleting oceanic oxygen.

Socio-economic Implications

1. Dead zones have increased in last two decades. This results in lower aquatic production.
2. The ~~fishermen~~ fishing sector will observe increased losses as it will have to venture deep into the oceans for fishing activities.
3. Deoxygenated waters often lead to algal blooms (as observed in Lonar lake Maharashtra). These algal blooms are many a times harmful for human health.

Environmental Implications

1. It leads to imbalance in aquatic life. While benthic zones increases, photic zone reduces in size.
2. It leads to increased acidity of the oceans, thus resulting in dissolution of carbon shells of various aquatic organisms.

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3. Oceans absorb 82% of the carbon emissions. Ocean deoxygenation disturbs this cycle.
4. It may lead to release of ~~various~~ sequestered carbon in oceans, furthering global warming,

Human induced climate change has it's adverse effects. These are propounded more evidently for oceanic ecosystem. Urgent policy guidelines, concerted efforts are required to be taken to mitigate these negative effects.

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19. Approach to flood control in India should evolve from piecemeal measures to an integrated basin management. Comment.

Floods are an annual phenomenon in India. Some of the states like Bihar, Assam witness floods every year due to the Brahmaputra and Ganga river systems. Such instances can be cited all over India.

Current approach to flood control

1. Building embankments along rivers
2. Construction of dams to regulate river water flow
3. Dredging of riverbeds to improve the water carrying capacity.

Why are these piecemeal measures insufficent?

1. Dredging is an expensive exercise. Moreover rivers like Brahmaputra bring a large amount of silt every year, thus making dreding a futile exercise.

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2. Dams themselves are unable to hold the excess waters during peak seasons. sudden release of water often results in floods, as observed in Kerela floods

3. The embankments are susceptible to erosion continuously, resulting in frequent breaches.

Thus it seems imperant to look towards integrated basin management as a solution which entails following features:-

1. Considering river basin as a single unit for planning.
2. It helps in modifying the water flow effectively according to needs of the whole basin.
3. Important initiatives like increased green cover in areas of rivers origin as well as surrounding the rivers provide better silt control as well as better embankments.
4. It provides a mechanism for inter-state coordination for flood solutions.

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5. It is a participative river management technique which provides inputs from all stakeholders. ~~in~~ ~~rivers~~

A large percentage of GDP is lost every year due to floods. Thus, adopting a multi-disciplinary approach to flood management is pertinent for wise river water utilisation.

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20. Programmes for cleaning polluted rivers in India have been implemented for a long time. However, the results of these programmes are not very encouraging. Identify the reasons for the same and possible steps to rectify the solution.

A recent report by TERI highlights that the number of polluted ~~stretch~~ stretches has increased to 354 in 2018. This shows that the programmes for cleaning polluted rivers in India have not been successful.

A case in point is of the Namami Ganga Programme. Spanning across the states of Uttrakhand, Uttar Pradesh, Bihar and West Bengal, this programme was funded extensively in the past 6 years. However the level of pollution in Ganga river is still critical.

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Reasons for below par performance

1. Lack of basin level approach.
2. Inter-state conflicts often results in inordinate delays.
3. Haphazard urbanisation results in unplanned sewage treatment facilities.
4. Unscientific waste handling practices.
5. Violation of environmental norms by the industries.
6. Lack of ecological flow in the rivers has reduced the self rejuvenating capacity of rivers.

Possible steps to rectify

1. Shift from piecemeal measures to basin level approach.
2. Real time collection of river samples to ascertain performance of different initiatives.
3. Strict enforcement measures for the

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polluting industries.

4. Innovative solutions involving bioremediation to be promoted.
5. Entrepreneurship in waste treatment sector to be promoted.
6. Extended producer responsibility should be implemented in all sectors..

River Health is an important target to be achieved under Sustainable development goals, 2030. A time-bound and dedicated efforts towards this initiative should be taken at the earliest.

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